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REMARKS

This application has been reviewed in light of the Office Action mailed on May 19, 2004. Claims 1-20 are pending in the application with Claims 1, 6, 10, 15, 17 and 19 being in independent form. By the present Amendment, Claims 1, 6, 10, 15, 17 and 19 have been amended. No new matter or issues are believed to be introduced by the amendments.

(1) In the Office Action, Claims 1-5 and 10-20 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,282,299 issued to Tewfik et al. (hereinafter Tewfik).

While the Office Action states that Claims 1-5 and 10-16 were rejected 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,282,299 issued to Tewfik et al., it is believed that the Examiner intended to state that Claims 1-5 and 10-20 were rejected in light of the explicit rejections of Claims 17-20 on pages 4-5 of the Office Action.

Applicant appreciates the courtesy granted to Applicant's attorney, Michael A. Scaturro (Reg. No. 51,356), during a telephonic interview conducted on August 10, 2004. During the telephonic interview, the rejection of Claim 1 was discussed. In particular, Applicant's attorney presented reasons stating why Claim 1 is not anticipated by and is therefore patentably distinguishable over the cited reference, Tewfik.

In the interview, Applicant's attorney explained the method of the invention, as recited in Claim 1. Applicant's attorney also provided reasons why Tewfik does not anticipate Claim 1. A general agreement was reached between Applicant's attorney and the Examiner that while both the cited reference and the present invention generally relate to watermarks, each are directed to wholly different objectives and methods for carrying out those objectives.

Specifically, Applicant's attorney pointed out that Tewfik is generally directed to an object-based approach that embeds watermarks in objects that persist across frames. The novelty of Tewfik resides in the fact that watermarks are more difficult to detect as compared with prior art approaches that use an independent watermark applied to each frame. By embedding the same watermark in the object as the object exists from frame to frame, statistical comparison does not yield the watermark thereby making detection difficult.

In contrast, the present invention is directed to overcoming a security procedure based on watermarks. Specifically, to overcome a watermark security system based on a limited set of possible watermark values, a collection of authentic watermarked material is created, and a substitution system provides material from this collection in lieu of the content material that the watermark verification system is intended to verify. A dictionary of expected watermarks for the data is provided. When the security system, to be overcome, requests the watermarked segments of the selected material (i.e., the select subset) the selected material is presented. When the security system requests watermarked segments of the non-selected material, the dictionary of expected watermarks is accessed, and the appropriate authentic watermarked material is presented from the stored collection.

In the interview, a general agreement was reached that an amendment to the independent Claims would be submitted in the response to the Office Action that would more clearly define the invention and distinguish it over Tewfik. However, the Examiner noted that in light of having a better appreciation for the method of the invention, and stating that the proposed amendment would likely overcome Tewfik, a further search would be required before a notice of allowance could be issued in the matter.

Independent Claim 1 has been amended herein to better define Applicant's invention over Tewfik. Claim 1 now recites limitations and/or features which are not disclosed by Tewfik.

Claim 1 as amended herein recites:

[1] A method of overcoming a watermark security system, comprising:

receiving a request for a requested segment of a plurality of segments that comprise a data set, determining that said requested segment is not included in a select subset of the

plurality of segments that comprise the data set,

locating a substitute segment from a collection of substitute segments,

the substitute segment having a watermark that contains a watermark value that is associated with the requested segment, and

communicating the substitute segment when said requested segment is not included in a select subset of the plurality of segments that comprise the data set.

Claim 1, as amended hereinabove, now recites that subsequent to a request being made for a segment, a determination is made that the requested segment is or is not included the "select subset" of the plurality of segments. In the case where the requested segment is not included in the "select subset", a substitute segment will be located that has a watermark value that is associated with the requested segment. The substitute segment is then communicated to the requestor, thus overcoming the watermark security system.

It is respectfully submitted that at least the limitations and/or features of Claim 1 which are underlined above is not anticipated by the disclosure of Tewfik.

Accordingly, withdrawal of the rejection under 35 U.S.C. §102(e) with respect to Claim 1 and allowance thereof is respectfully requested.

Additionally, 2-5 depend from independent Claim 1 and therefore contain the limitations of Claim 1. Hence, for at least the same reasons given for Claim 1, Claims 2-5 are believed to be allowable over Tewfik. Accordingly, withdrawal of the rejection under 35 U.S.C. §102(e) with respect to Claims 2-5 and allowance thereof is respectfully requested.

Independent Claims 10, 15, 17 and 19 as amended, recite similar subject matter as Claim 1 and therefore contain the limitations of Claim 1. Hence, for at least the same reasons given for Claim 1, Claims 10, 15, 17 and 19 are believed to be allowable over Tewfik. Accordingly, withdrawal of the rejection under 35 U.S.C. §102(e) and allowance of Claims 10, 15, 17 and 19 is respectfully requested.

Additionally, claims 11-14, 16, 18 and 20 depend respectively from independent Claims 10, 15, 17 and 19 and therefore contain the limitations of Claims 10, 15, 17 and 19. Hence, for at least the same reasons given for Claims 10, 15, 17 and 19, Claims 11-14, 16, 18 and 20 are believed to be allowable over Tewfik.

Accordingly, withdrawal of the rejection under 35 U.S.C. §102(e) with respect to Claims 11-14, 16, 18 and 20 and allowance thereof is respectfully requested.

(3) In the Office Action, Claims 6-9 were rejected under 35 U.S.C. §103(a) as being anticipated U.S. Patent No. 6,411,725 B1 to Rhoads.

Independent Claim 6 has been amended herein to better define Applicant's invention over Rhoads. Claim 6 now recites limitations and/or features which are not disclosed by Rhoads.

Claim 6 as amended herein recites:

{6} A substitution system, comprising:

an interface that is configured to
receive a request for a requested segment of a plurality of segments comprising
a data set,

determine that said requested segment is not included in a select subset of
the plurality of segments that comprise the data set, and

forward the requested segment to a substitution device;

a dictionary that is configured to provide a watermark value corresponding to the
requested segment, and

the substitution device, operably coupled to the interface and to the dictionary, that is
configured to provide a substitute segment from a collection of watermarked segments in response to the request
when said requested segment is not within a selected subset of segments of the plurality of segments comprising
the data set;

wherein the substitute segment includes a watermark that has the watermark value corresponding to
the requested segment.

It is respectfully submitted that at least the limitations and/or features of Claim 6 which
are underlined above is not anticipated by the disclosure of Rhoads.

Rhoads teaches the use of watermarks in video signals or audio tracks to associate video
objects in a video sequence with object specific actions or information. By encoding object
specific information into video or an accompanying audio track, the watermarks transform video
objects into "watermarked enabled" video objects that provide information, actions or links to
additional information or actions during playback of a video or audio-visual program.

Rhoades states in the summary:

Another aspect of the invention is a method for using a watermark that has
been encoded into a video signal or in an audio track accompanying the

video signal. The watermark conveys information about a video object in the video signal. The method decodes the information from the watermark, receives a user selection of the video object, and executes an action associated with the information about the video object. One example of an action is to retrieve a web site associated with the video object via the watermark. The watermark may include a direct (e.g., URL or network address) or indirect link (e.g., object identifier) to the web site. In the latter case, the object identifier may be used to look up a corresponding action, such as issuing a request to a web server at a desired URL. Object information returned to the user (e.g., web page) may be rendered and superimposed on the same display as the one displaying the video signal, or a separate user interface.

The Examiner cites Rhoades at Col. 11, line 66 to Col. 12, line 13 and at Col. 6, lines 46-59 as anticipating Claim 6. Applicants respectfully traverse this assertion. Rhoades at Col. 11, line 66 to Col. 12 refers to a method of reducing watermark decoding overhead by invoking the decoder on only portions of frames, or by focusing on a spatial region around a screen location of a video display selected by a user. The request being discussed is not for *a requested segment of a plurality of segments comprising a data set*, as recited in Claim 1. It is instead a request for a video object selected by a user. Because the selected video object is watermarked enabled, in response to the request, linked information is retrieved or an action(s) is taken for the selected object.

Accordingly, withdrawal of the rejection under 35 U.S.C. § 102(e) with respect to Claim 6 and allowance thereof is respectfully requested.

Additionally, 7-9 depend from independent Claim 6 and therefore contain the limitations of Claim 6. Hence, for at least the same reasons given for Claim 6, Claims 7-9 are

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16. (Original) The method of claim 15, wherein the dictionary is configured to contain a set of associations of substitute segments for the plurality of segments of the data set.

17. (Currently Amended) A method of overcoming a watermark security system of a rendering system for rendering selected material from content material of a data set, said content material including a plurality of watermarked segments, said method comprising:

requesting a requested segment of said plurality of watermarked segments to verify authenticity of at least one of said plurality of watermarked material included in said requested segment;

determining that said requested segment is not included in a select subset of segments to be rendered of the plurality of segments that comprise the data set;

obtaining said at least one of said plurality of watermarked segments from a collection of substitute segments included in said watermark security system when said requested segment is not included in said selected material; and

obtaining said at least one of said plurality of watermarked segments from said requested segment when said requested segment is included in said selected material.

18. (Previously Presented) The method of claim 17, wherein said substitute segments have watermarks that contain watermark values that are associated with said watermarked segments of said content material of said data set.